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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/679,767	10/05/2000	Michael John Smith	15.668	1320
23556	7590	12/23/2004	EXAMINER	
KIMBERLY-CLARK WORLDWIDE, INC. 401 NORTH LAKE STREET NEENAH, WI 54956				MIGGINS, MICHAEL C

ART UNIT	PAPER NUMBER
1772	

DATE MAILED: 12/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/679,767	SMITH ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Michael C. Miggins	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 15 July 2004.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-33 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-33 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
     Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
     Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_

**DETAILED ACTION**

**REJECTIONS REPEATED**

1. The 35 USC 103(a) rejection of claims 1-33 as being unpatentable over Salman et al. in view of Edwards et al. and Farrington, Jr. et al. is repeated for the reasons of record set forth in the non-final rejection of 7/15/2004, pages 2-4, paragraphs 2-3.

**NEW REJECTIONS**

2. There are no new rejections.

**WITHDRAWN REJECTIONS**

3. There are no withdrawn rejections.

**ANSWERS TO APPLICANT'S ARGUMENTS**

4. Applicant's arguments filed 10/6/04 have been carefully considered but are deemed unpersuasive.

Applicant has argued that the claimed void volume, caliper and the geometric mean stretch ranges are not obvious in view of the cited art of record.

With regards to the void volume applicant has argued that although Edwards does teach a void volume within applicant's claimed range, one of ordinary skill in the art would not seek to provide a void volume of 8 or greater for the purpose of reducing lint. However, the reduction in lint was not the sole motivation for providing a void volume of 8 or greater in the tissue of Salman. Another reason presented in Edwards et

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al. and stated in the non-final rejection of 7/15/2004, pages 2-4, paragraphs 2-3 was to provide *softer wet-pressed tissue* which is also stated in Edwards (column 1, lines 25-30). Void volume is directly related to softness since higher void volume presumably results in greater softness. Therefore, motivation is provided by Edwards to provide a void volume of 8 or greater in the tissue of Salman in order to provide greater softness.

With regards to caliper, applicant has argued that although Farrington et al. does disclose a tissue sheet having a single sheet caliper of 0.0094 inch (Example 13 from Table 1) which is well within applicant's claimed range, applicant's claimed caliper is not obvious because it does not follow that providing the tissue sheet of Salman et al. with such a low caliper would provide high bulk and low stiffness and those skilled in the art seeking to increase the bulk of any tissue sheet would do just the opposite since increasing bulk increases caliper. While applicant's argument may or may not have merit, it is well known that low caliper results in lower production costs since less plies per sheet are used. Farrington clearly states that single-ply products have lower manufacturing costs (see column 3, lines 28-52). Therefore, Farrington provides motivation for providing applicant's claimed sheet caliper in order to reduce production costs.

With regards to the geometric mean stretch, which is the square root of the product of machine direction stretch and cross direction stretch (see instant specification page 2), applicant has argued that the claimed geometric mean stretch is not obvious because there is no motivation to optimize the geometric mean stretch. However, Farrington provides clear motivation to optimize both machine direction

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stretch and cross direction stretch and thus geometric mean stretch since geometric mean stretch is the square root of the product of machine direction stretch and cross direction stretch. Farrington states that machine direction stretch and cross direction stretch are optimized to yield a smooth fabric with high bulk (column 8, lines 30-50). Thus, optimization of machine direction stretch and cross direction stretch provides a smooth fabric with high bulk. Optimization of ranges is within the level of one of ordinary skill in the art (MPEP 2144) and, in the instant case, the motivation to optimize the geometric mean stretch is to provide a smooth fabric with high bulk as suggested by Farrington.

For the reasons outlined above, applicant's claimed ranges of void volume, caliper and the geometric mean stretch are believed to be obvious over the applied prior art of record.

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Miggins whose telephone number is (571) 272-1494. The examiner can normally be reached on Monday-Friday; 1:30-10:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pyon Harold can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael C. Miggins  
Examiner  
Art Unit 1772



MCM  
December 21, 2004